

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
22 January 2004 (22.01.2004)

PCT

(10) International Publication Number
WO 2004/007762 A2

(51) International Patent Classification⁷: **C12Q 1/68**

(21) International Application Number:
PCT/EP2003/007491

(22) International Filing Date: 10 July 2003 (10.07.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/395,088 11 July 2002 (11.07.2002) US
60/472,489 22 May 2003 (22.05.2003) US

(71) Applicant (for all designated States except AT, US): NOVARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).

(71) Applicant (for AT only): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).

(71) Applicant (for all designated States except US): UNIVERSITY OF MARYLAND [US/US]; 520 West Lombard Street, Baltimore, MD 21201 (US).

(72) Inventors; and
(75) Inventors/Applicants (for US only): BILBE, Graeme

[GB/CH]; Chemin de Maujobia 37, CH-2000 Neuchatel (CH). KINNUNEN, Anu [FI/DE]; Kirchstrasse 11, 79618 Rheinfelden-Herten (DE). KOENIG, James, Irvin [US/US]; 1406 Tuffed Moss Court, Crofton, MD 21114 (US).

(74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW.

(84) Designated States (regional): Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

Published:
— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/007762 A2

(54) Title: GENES ASSOCIATED WITH SCHIZOPHRENIA, ADHD AND BIPOLAR DISORDERS

(57) Abstract: Disclosed are methods for diagnosing, monitoring the progression of, and treating schizophrenia, bipolar disorder, and/or ADHD based upon genes that are differentially expressed in said disorders at baseline, or at different timepoints following an acute stress exposure. Also disclosed are methods for identifying agents useful in the treatment of schizophrenia, bipolar disorder, and/or ADHD, methods for monitoring the efficacy of a treatment for schizophrenia, bipolar disorder, and/or ADHD, methods for preventing and treating schizophrenia, bipolar disorder, and/or ADHD, and an animal model for schizophrenia, bipolar disorder, and/or ADHD.